



Substitute Specification

Patent Application of James Earl Taulbee III for Recreational Vehicle Awning Hook Hanger

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TITLE: RECREATIONAL VEHICLE AWNING HOOK HANGER

CROSS-REFERENCE TO RELATED APPLICATIONS: None.

FEDERALLY SPONSORED RESEARCH: None.

SEQUENCE LISTING: None

FIELD OF INVENTION

The invention is a RV awning hook hanger. Specifically to an improved hanger devise designed to display objects from the utility channel on an awning roller rail of a recreational vehicle, camper, motor home, boat, house, commercial or other building.

BACKGROUND

The use of awnings for recreational vehicles, campers, motor homes, and boats; also awnings mounted to fixed structures such as a house or commercial buildings have become increasingly popular. Consumers desire for comfort, convenience, and the desire for a method to display objects or attachments on an awning roller rail. Several products have come to the market



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that enable the user to display objects from the awning roller rail. These products do not easily meet the needs of displaying objects on an awning roller rail without using secondary clips, hooks or clamps. The use of secondary clips, hooks or clamps makes the installation more time consuming, there are also more parts to store, lose or misplace. There are also added costs to manufacture, package, market, and maintain these items. I have listed two patents as examples 1 and 2 as my improvements on prior art.

Example 1: The AWNING HOOK FOR RECREATIONAL VEHICLLE in patent 5,174,536 to Ralf W. Pelletier: Ila Pelletier. This method requires use of secondary hardware to display an object from the awning roller rail with the disadvantages listed as the need to use a secondary slip or "S" hooks. The use of secondary slip hook or "S" hook makes the installation cumbersome and time consuming. There are also more parts to store, lose or misplace with added costs to manufacture, package, market, and maintain.

Example 2: The AWNING ROD BRACKET in patent 5,601,267 to Donald R. Caine. This example also requires use of secondary hardware to display an object from the awning roller rail with the disadvantages listed as the need to use a secondary slip or "S" hooks. The use of secondary slip hook or "S" hook makes the installation cumbersome and time consuming. There are also more parts to store, lose or misplace with added cost to manufacture, package, market, and maintain.



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OBJECTS AND ADVANTAGES

Awnings are manufactured with two or more "C" shaped retainer channels that run the full length and parallel to the awning roller rail. One of the retainer channels is used to hold the awning fabric to the awning roller rail. Another retainer channel is used to hold the valance to the awning roller rail. In many cases the same channel is used for the attachment of the main awning fabric and the valance. One of the channels is called a utility channel. This channel is used to hold a deployment strap, also called a pull down strap. The deployment strap is used to pull the awning from a stored position to the open position. The deployment strap also allows users retract the awning in a controlled manner to the stored position, as the awning roller rail is tensioned or spring loaded. The deployment or pull down strap has a radial end to be accepted by the utility channel on the awning roller rail. The utility channel has an opening at one end of the awning roller rail to accept the deployment straps radial end. After opening the awning, the deployment straps radial end can be moved to the end of the awning roller rail and removed from the utility channel to be stored. With the awning in the open position and the deployment strap removed, the unused utility channel can be used to accommodate hanger devices. These hanger devices are designed to slide in the unused utility channel on the awning roller rail. The user slides an appropriate number of hangers into the utility channel on the awning roller rail. After the hangers are positioned or spaced in the utility channel, the user must then insert a hook, clip, or clamp into the awning hanger to hold the desired object.

With consumers desire for convenience, and the desire for a method to display objects on the awning roller rail. Several product have come to the market that enable the user to display rope lights, string lights, or other types of accent or ornamental lighting, also signs, banners,



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flags, windsocks or other objects from the awning roller rail. These products do not easily meet the needs of displaying objects on an awning roller rail without using a secondary clip, hook or clamp. The use of secondary clips, hooks or clamps makes the installation more time consuming, as well as there are also more parts to store, lose or misplace, with added cost to manufacture, package, and maintain.

I propose a new awning hook hanger design that eliminates the need to use secondary hardware to display objects from an awning roller rail. The clip's design will accommodate rope lights, string lights, or other types of accent or ornamental lighting, signs, banners, flags, windsocks, and other objects to the awning roller rail. The clip will be less expensive to manufacture, package, and ship, because no secondary hardware will be required. The consumer will have fewer parts to store, lose or misplace, and faster set up and take down of lights or other items. They are lightweight and being made of a weatherproof material, will last for years. Further objects and advantages of my invention will become apparent to those skilled in the art from a consideration of the drawings and ensuing description.

SUMMARY

The invention of the awning hook hanger was a result of the inventor's desire for a simpler, and less expensive method of an awning hanger device for displaying objects from an awning roller rail. The awning hook hanger has a hook shaped end to allow users to display items from the hook hanger on the awning roller rail without the use of secondary clip, hook, clamp or other hardware.



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DRAWINGS-FIGURES

I have included four drawings as follows.

FIGURE 1 shows a three-dimensional drawing of an RV awning hook hanger.

FIGURE 2 shows an end view of an awning roller rail with a RV awning hook hanger installed in the awning roller rail

FIGURE 3 shows a three-dimensional side view drawing of three RV awning hook hangers installed in the awning roller rail.

FIGURE 4 shows an overall drawing of a recreational vehicle with an awning, and RV awning hook hangers installed in the awning roller rail.

DRAWINGS—REFERENCE NUMBERS

- 10 RV awning hook hanger
- 11 radial end of RV awning hook hanger
- 12 retainer channel of an awning roller rail
- 13 hook shaped end of a RV hook hanger
- 14 awning roller rail
- 15 core hole to aid in manufacturing
- 16 awning fabric



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DETAILED DESCRIPTION—FIGURES

Figure 1 as illustrated, is a preferred embodiment of the RV awning hook hanger of the present invention. The RV awning hook hanger **10** has two major parts connected to a planar body. First, a radial end **11** that has a substantially cylindrical shape. The radial end **11** includes a core hole **15** to aide in the production molding process. Second, the body of the RV Awning hook hanger **10** includes a hook shaped end **13** designed to allow users to display items from the RV awning hook hanger **10**. The awning hook hanger **10** may be formed by injection molding as is conventional in the trade and can be manufactured from polyvinyl chloride, nylon or other suitable material. The molding material can include ultraviolet inhibitors that will enable the RV hook hangers to withstand outdoor use and last for many years.

Figure 2 illustrates the end view of the awning roller rail **14** with a RV hook hanger **10** installed. The awning roller rail **14** has a utility channel **12** that is designed by the awning manufacturer to accept articles with a substantially cylindrically shaped end. The radial end **11** of the RV hook hanger **10** is manufactured to fit the utility channel **12**.

Figure 3 illustrates a three-dimensional drawing of the awning roller rail. The awning roller rail **14** shown with three awning hook hangers **10** installed in the utility channel **12**.

Figure 4 illustrates a front view of a recreational vehicle with an awning deployed. The awning fabric **16** is attached to the awning roller rail **14**. Figure 4 also shows three RV awning hook hangers **10** installed in the awning roller rail **14**. It is noted that one or more RV awning hook hangers may be used depending on the needs of the user. The user may want to utilize the RV awning hook hanger singularly to display a windsock or banner, or use several RV hook hangers to support a set of lights or other items. The illustrations and examples provided are for explanatory purposes and are not intended to limit the scope of the appended claims.